

REMARKS

Claims 1 - 23 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-4, 7-17, 20-21 and 23 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Beck et al. (U.S. Pat. No. 6,354,268). This rejection is respectfully traversed.

Claims 1 and 11 recite retarding spark in the engine if an engine condition exceeds a threshold. Beck et al. fails to show, teach or suggest retarding spark in the engine if an engine condition exceeds a threshold. Beck et al. teaches away from spark ignition engines and is limited to compression ignition engines (see Col. 3, Lines 62-67 and Col.6, Lines 59-61). Beck et al states:

Other patents disclose the control of spark ignition engines based on in-cylinder pressure measurements. All measurements and calculations are applicable only to engines fueled by a spark-ignited, premixed fuel charge. None of these patents disclose a system usable in compression ignition engines fueled with heterogeneous fuels.

(See Col. 3, Lines 62-67 and Col.6, Lines 59-61). Thus, Beck et al. suggests that compression ignition engines are not analogous to spark ignition engines.

Compression ignition engines initiate combustion based on compression and do not include a spark source to initiate combustion. Because Beck et al. does not teach or suggest a spark source, Beck et al. can not teach or suggest retarding spark. Therefore, Beck et al. fails to teach or suggest retarding spark in the engine if an engine

condition exceeds a threshold and reconsideration and withdrawal of the rejection are respectfully requested.

With regard to claims 2 - 4 and 7 - 10, Applicants note that each ultimately depends from claim 1, which defines over the prior art as discussed in detail above. Therefore, claims 2 - 4 and 7 - 10 also define over the prior art and reconsideration and withdrawal of the rejections are respectfully requested.

Regarding claims 12 and 13, Applicant notes that each ultimately depends from claim 11, which defines over the prior art as discussed in detail above. Therefore, claims 12 and 13 also define over the prior art and reconsideration and withdrawal of the rejections are respectfully requested.

Claim 14 includes a controller that retards spark in the engine if at least one engine condition exceeds a threshold. As discussed above, Beck et al. fails to show, teach or suggest a controller that retards spark in the engine if at least one engine condition exceeds a threshold. As discussed above, Beck et al. teaches away from spark ignition engines and is limited to compression ignition engines.

Because Beck et al. does not show, teach or suggest a spark source, Beck et al. can not show, teach or suggest retarding spark. Therefore, Beck et al. fails to show, teach or suggest a controller that retards spark in an engine if at least one engine condition exceeds a threshold and reconsideration and withdrawal of the rejection are respectfully requested.

With regard to claims 15-17, 20, 21 and 23, Applicants note that each ultimately depends from claim 14, which defines over the prior art as discussed in detail above.

Therefore, claims 15-17, 20, 21, and 23 also define over the prior art and reconsideration and withdrawal of the rejections are respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 5 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wu et al. (U.S. Pat. No. 6,006,155) in view of Beck et al. (U.S. Pat. No. 6,354,268). This rejection is respectfully traversed.

Applicants note that claims 5 and 18 ultimately depend from claims 1 and 14, respectively, which define over the prior art as discussed in detail above. Therefore, claims 5 and 18 also define over the prior art and reconsideration and withdrawal of the rejections are respectfully requested.

Claims 6, 19 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi et al. (U.S. Pat. No. 6,298,823) in view of Beck et al. (U.S. Pat. No. 6,354,268). This rejection is respectfully traversed.

Applicants note that claims 6, 19 and 22 ultimately depend from claims 1 and 14, respectively, which define over the prior art as discussed in detail above. Therefore, claims 6, 19, and 22 also define over the prior art and reconsideration and withdrawal of the rejections are respectfully requested.

OTHER CLAIM AMENDMENTS

Claims 1 and 11 have been amended herein to more clearly specify that the present invention is directed toward spark ignition engines. Claims 3 and 16 have been amended to correct inconsistencies.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (313) 665-4969.

Respectfully submitted,

Dated: 10-8-04

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Serial No. 10/664,323

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